



# Intermontanus

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## 1996 Dues & Directory

If you have not paid your dues for 1996, this will be your last newsletter. If you have paid your dues and want to be included in the directory (to be sent in March), please make sure to send the directory information in by February 20th. If you have any questions about your dues or the directory call Breck (801) 752-0297.

## New E-mail Address

Please note that UtAH has a new e-mail address ([Herpbbooks@sisna.com](mailto:Herpbbooks@sisna.com)). This will get you in contact with Breck Bartholomew. Also John Varney of Desert Serpents Reptiles has set up a world wide web page for UtAH (<http://www.syspac.com/~varney/utah.html>). If you have access to the WWW you might also wish to visit John's home page (<http://www.syspac.com:80/~varney/index.html>).

## Correction to DWR Pamphlet

The Utah Division of Wildlife Resources has informed us of a printing error in the R657 proclamation (this is the pamphlet of amphibian & reptile laws). The spotted frog (*Rana pretiosa*) should appear as prohibited in the section on collection. Copies of this pamphlet were handed out at the September meeting.

## New Publications

Robert Stebbins and Nathan W. Cohen recently wrote a book entitled, *A Natural History of Amphibians*. This is a book for all readers who want to learn about amphibians. It draws on many years of classroom teaching, laboratory experience, and field observations by the authors. *A Natural History of Amphibians* can serve as a textbook for students and independent learners, as an overview of the field for professional scientists and land managers, and as an engaging introduction for general readers. (*Personally, I think it looks like a great book! —Ed.*)

This book is published by Princeton University Press, 41 William Street, Princeton, NJ 08540. The cost is \$29.95.

The Declining Amphibian Population Task Force Regional Group for the Commonwealth of Independent States has published a summary of the status of amphibians in the CIS. The book entitled, *Amphibian Populations in the Commonwealth of Independent States: Current Status and Declines* is edited by S. L. Kuzmin, C. K. Dodd, and M. M. Pikulik and includes 22 reports covering six regions. Reports vary from specific studies to general overviews of specific regions.

This book is available from Bibliomania in the US, or from PenSoft Publishers, 1 Checkhov Street, 208 #6, 1113 Sofia, Bulgaria. The cost is \$27.00.

Surrey Beatty & Sons recently published the book *Amphibian Biology. Volume 2: Social Behaviour* edited by Harold Heatwole and Brian K. Sullivan. This volume treats the social behavior of amphibians, how they attract and compete for mates, care for their young, defend territories, recognize each other, how these activities are affected by hormones, and how they evolved.

This book is available from Bibliomania for US\$65.00 or from

Surrey Beatty & Sons, 43 Rickard Road, Chipping Norton, NSW, 2170 Australia for A\$75.00.

*Frog and Toad Calls of the Pacific Coast* was recently released by the Cornell Laboratory of Ornithology. The recording is available in both compact disk (\$14.95) and cassette (\$12.95) recordings and includes a 28 page booklet. Advertisement calls of 25 species are presented (14 of which occur in Utah) as well as a section comparing similar calls, a test section, and recordings of selected choruses. This is the first in a series of frog call recordings planned by the Cornell lab.

For more information write Cornell Laboratory of Ornithology, 159 Sapsucker Woods Road, Ithaca, NY 14850, or e-mail: libnatsound@cornell.edu.

Viper Press recently published *A Little Book of Monitor Lizards* by Daniel Bennett. The book contains nine chapters, five appendices, and 17 plates of photographs (eight photos/plate on most). Each species of Varanid is discussed and a wealth of information is summarized.

Two editions have been printed. The limited edition (£29) contains color plates and the regular edition has black & white plates. For more information write Viper Press, P.O. Box 10087, Aberdeen AB2 2GJ, Great Britain.

*Iguana iguana: Guide for Successful Captive Care* by Fredric L. Frye is a new book published by Krieger Publishing Company. Based on *Iguanas: A guide to Their Biology and Captive Care*, this second edition is now improved by: a 35% increase in page count; addition of 16 pages of new color photos (the color section has tripled); a redesigned and expanded text to make it more user-friendly; and the inclusion of published data as current as January 1995. An entirely new section has been added to this edition which includes information on scoliosis and kyphoscoliosis; an admonition against purposeful cooling to achieve restraint; and material on normal physiologic values, sources of reptile-related products, and fluid therapy, including intramedullary (intraosseous). See the book review for this book in this issue.

The Association des Amis du Laboatoire des Reptiles et Amphibiens du Muséum National d'Histoire naturelle de Paris (AALRAM) recently announced the publication of the second volume (124 pages) of *Dumerilia*. The aim of *Dumerilia* is to publish the results of original research dealing with all aspects of herpetology from biology to zoogeography, including systematics, evolution conservation or even nomenclatural problems.

Contents of volume two are: Biodiversité et reptiles: diagnoses de sept nouvelles espèces fossiles et actuelles du genre de lézards *Lygodactylus* (Sauria, Gekkonidae) by G. Pasteur; Une nouvelle espèce de tortue terrestre dans le Péloponnèse (Grèce) by R. Bour; The valid scientific name of the Italian treefrog, with comments on the status of some early scientific names of Amphibia Anura, and on some articles of the *Code* concerning secondary homonyms by A. Dubois; Types of recent trionychid turtles in the Muséum national d'Histoire naturelle, Paris by R. Bour, A. Dubois, & R.G. Webb; Constant Duméril était aussi entomologiste by E.-R. Brygoo; and *Phelsuma inexpectata* Mertens, 1966, le lézard vert de Manapany-les-Bains (La Réunion): données chorologiques et écologiques (Reptilia, Gekkonidae) by R. Bour, J.-M. Probst, & S. Ribes.

Copies of *Dumerilia* cost \$30 for individuals and can be paid for by personal checks made out to AALRAM. To order or for more

information write to: AALRAM, Laboratoire des Reptiles et Amphibiens, Muséum national d'Histoire naturelle, 25 rue Cuvier, 75005 Paris, France.

## *Curiosity Corner*

## FIRE ANTS

## Breck Bartholomew

**Q**—When I was in southern Utah, I don't think there was a single time when I stopped and looked on the ground and didn't see a fire ant (except in big areas of slick-rock). How has the fire ant affected the populations of reptiles and amphibians? Do the ants kill a lot of young animals or eggs? What is the estimated population density of the ants?

A—Although I cannot tell you the population density of ants in southern Utah, I can say that the ants you saw were not the infamous fire ants (*Solenopsis invicta*) of the southern U.S. that has been blamed for the decline of horned lizards. It is unlikely that Utah will ever face the wrath of these fire ants as it appears they have reached their northern limits in the U.S. (Francke and Cokendolpher 1986).

The only study I know of that has examined the effect of these ants on reptiles was published by Donaldson, Price and Morse in 1994. They surveyed parts of Texas to determine the status of the Texas horned lizard (*Phrynosoma cornutum*). Fire ants were just one aspect of their study and they concluded:

"The impact of *Solenopsis invicta* on *P. cornutum* is unclear. Scale effects may be important as demonstrated for small mammals (Killion and Grant, 1993). Many areas where this ant species occurs in high densities are also areas subject to landscape disturbances (Porter and Savignano, 1990). Five instances of *P. cornutum* swarmed by ants were recorded, but the lizards were already dead, and their deaths cannot be directly linked to fire ants. *S. invicta* may impact *P. cornutum* in a variety of ways, however. It is unknown whether horned lizards can forage, grow and reproduce normally on a diet consisting of *S. invicta* when other ant species become rare. Evidence that fire ants kill other arthropods including *Pogonomyrmex* spp. was recorded during this status survey, and their negative impacts on the diversity and abundance

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of native arthropods have been well documented (Porter and Savignano, 1990; Morris and Steigman, 1993). Such impacts may decrease the availability of adequate food resources to the Texas horned lizard. Another feature of *S. invicta* which may affect *P. cornutum* is the subterranean foraging tunnel system these ants construct below their mounds (Markin et al., 1975). In areas of high *S. invicta* densities, it may be impossible for horned lizard eggs to incubate or individuals to hibernate successfully."

As for the ants you observed in southern Utah, I believe most of them are native species. I am not aware of any non-native ant species in Utah that are threatening amphibians and reptiles. Unfortunately, I know very little about ants or the ants of Utah and cannot go into more detail. I hope the information provided is sufficient to answer your questions.

## Literature Cited

Donaldson, W., A.H. Price, and J. Morse. 1994. The current status and future prospects of the Texas horned lizard (*Phrynosoma cornutum*) in Texas. Texas Journal of Science 46(2):97-113. (and references therein)

Francke, O.F. and J.C. Cokendolpher. 1986. Temperature tolerances of the red imported fire ant. pp 104-113 In: C.S. Lofgren and R.K. Vander Meer (eds.) *Fire Ants and Leaf-Cutter Ants: Biology & Management*. Westview Press, Boulder CO.

*Dear Editor,*

I would like to endorse your comment in the recent 'viewpoint' *Intermontanus* Vol 4 No. 6. on common names. Indeed, common to who? The crocodilians provide a specially frustrating example of confusion that is compounded by multilingual common names that sound like they should refer to the same thing, but don't. Latin American Spanish uses 'cocodrilo', and 'lagarto' or 'el lagarto' from which alligator is thought to be derived. There is also the endemic Amerindian term 'caiman'. What could be simpler than having South American crocodiles (4 species, *Crocodylus acutus*, *C. intermedius*, *C. moreletii* and *C. rhombifer*) called cocodrilo and the various caimans and alligator called lagarto or caiman? No such luck! Consider that the "American crocodile", *C. acutus*, is variously known as cocodrilo (Nicaragua), lagarto (Cuba), alligator (Belize) and Caiman de Costa (Venezuela)! Cocodrilo is also used to refer to the three other *Crocodylus* species, the black caiman (*Melanosuchus niger*), two species of *Paleosuchus* and the common caiman, which further compounds the difficulty with its specific epithet *Caiman crocodilus*!

These confusions are of some antiquity and continue to cloud the picture of which crocodilians belong where. *Crocodylus rhombifer* (the Cuban crocodile) is usually described as being distributed only in Cuba and the Isle of Pines. However recent discoveries of skeletal material in Grand Cayman Island indicate that it occurred there into historic time (see Morgan et al. 1993). The old mystery of why Columbus named the Cayman islands is solved. Apparently there were crocodilians there that Columbus's Indian guides called "caymans". The problems were further confused by the larger-than-life buccaneer and naturalist, William Dampier. He was a worldwide traveler, navigator and unusually reliable observer and commentator who reported in 1699 that, "In the Bay of Campeachy I have seen only caymans or alligators; in the Island of Grand Cayman there are cocodrilos and no alligators; in the Isle of Pines and Cuba, there are cocodrilos and caymans together.." So what did old Bill the pirate see where? Today there are both *C. acutus* and *C. moreletii* near Campeche in Mexico, but *Caiman crocodilus*, reaches its northern limit in the Pacific drainages of Oaxaca and extends only as far north as Honduras in the Caribbean. In the Caymans, the crocodile is now known to be *C. rhombifer*, and both *C. rhombifer* and *C. acutus* occur in Cuba, although the presence of *C. rhombifer* on the

Isle of Pines has yet to be confirmed with a modern specimen. Confusing *C. acutus* and *C. moreletii* is understandable, they were only clearly separated by Smith and Taylor in 1950, but Dampier's polyglot mixture of common names has left a legacy of discontent about crocodile distributions and affiliations in the Americas that lingers to this day. It is only going to get worse as *Caiman crocodilus* is now successfully introduced into the Isle of Pines, Puerto Rico and Florida, where it flourishes to cause linguistic confusion among the multilingual inhabitants, who have a choice of common, spectacled or brown caiman; baba; alligator; lagarto; guajipal;

cocodrillo; ocoroche; cascarudo; cachirre or tuliso!

Two points emerge. The problem of uncommon common names becomes compounded when additional languages are involved, and the distribution of crocodilians in Central and South America remains a topic where more information is needed.

Yours sincerely,  
**James Perrin Ross**  
Executive Officer  
Crocodile Specialist Group

## SOME COMMENTS IN RELATION TO JOEL R. EIDBO'S REVIEW OF TEN HERP MAGAZINES

**Raymond Terrence Hoser**

I read with interest Joel Eidbo's review of the herp magazines, published in *Intermontanus* 4(5) pp. 37-8, as I had recently prepared a similar review of herpetological and related publications for the Victorian Herpetological Society Journal, *Monitor*. Eidbo's review is well written and informative. However there are comments he made which I either disagree with or take issue over.

In making his comments on the magazines, he has been somewhat subjective and done so without properly taking into regard the target audiences of each magazine, or making this clear to the readers. For example he rated the content of the Australian publications *Monitor* as "B" and *Herpetofauna* as "A". This I found somewhat incongruous. You see the two publications have different target audiences and their content is tailored appropriately. *Herpetofauna* is a scientifically based publication with the primary aim of reporting first time observations and research. *Monitor* on the other hand is a society based publication which is aimed chiefly at the reptile keeper and its contents are designed accordingly. The average reader of *Monitor* is probably not as highly qualified or experienced (herpetologically speaking) although many people clearly subscribe to both.

While talking about *Monitor*, Eidbo questioned the using of color photos of road killed reptiles, presumably on the basis that "more important" things could be shown in the color section of the magazine. The photos themselves accompanied an impressive article on the carnage of reptiles on Australian roads and had major impact by being in color due to the vivid display of blood and guts in the images. No black and white reproduction would have had the same effect. Furthermore the size of the road carnage in Australia is particularly irksome as wildlife bureaucrats here do nothing to curb this slaughter. This is while at the same time acting as "econazis" to the keepers, who account for far fewer reptiles being removed from the wild. The article by Rob Valentic was particularly pertinent to reptile enthusiasts in the Australian context. To compare the reproduction of those photos to a Far Side cartoon was really out of whack.

While talking about both *Monitor* and *Herpetofauna*, Eidbo makes the comment about them being relatively expensive. This point I must dispute. You see from Australia, to order outside magazines such as the other eight reviewed, we face prohibitive exchange rate costs and bank fees, making them all disproportionately expensive relative to local publications. I assume that this same scenario in reverse makes Australian publications dearer to USA citizens and not necessarily because the magazines themselves are expensive at the point of publication. For an Australian resident *Herpetofauna* and *Monitor* are by far the cheapest herp magazines to subscribe to.

While talking content of magazines, it also worth mentioning that it is also horses for courses. Australians prefer magazines with Australian material (due to local legal restrictions on keeping anything else), so it would stand to reason that we prefer and buy

more of our own. However for USA citizens the choice of what may be kept or studied is wider and thus different people may prefer different magazines. These differences don't necessarily give one magazine better content than another.

The comment by Eidbo, that *Herpetofauna* is "technical, but readable" is also a little unfair. Most articles are written by so-called amateurs and while in a standardized and formal layout, they do not themselves carry language that is beyond the understanding of any adult of average education. The relative lack of photos and adverts in the publication may make it less bright and attractive than other magazines, but this does not make the content in any way prohibitively technical.

From my own point of view, I rate the content of *Herpetofauna* as excellent, but believe the layout is somewhat dated and not as user-friendly as it could perhaps be. I believe the layout of *Herpetofauna* is the principal reason why people may be misled into erroneously believing it is perhaps too technical for people to understand.

On the subject of adverts, Eidbo gives the impression that he doesn't like them. I personally find many ads interesting and informative due to the materials being sold and the subjects they broach. I often find some ads in magazines more noteworthy than some of the articles. This is because most ads in the various magazines are targeted directly at reptile enthusiasts and in my view rarely fit the category of dead wood or "junk ads". Perhaps it is the laying out of the ads and articles in a magazine that is more important than the overall numbers of each (in particular the ads).

Finally I must take exception to Eidbo's comments about *The Vivarium* magazine devoting too much space to legislative and regulatory updates, and similar disparaging comments about this subject elsewhere in his review. I personally think the reverse is probably true and would prefer to see all magazines take an even greater interest in these sorts of matters. The fact is that in the real world, wildlife bureaucracy and bureaucrats are playing an ever increasing role in herpetological matters. Not only are the laws and actions of enforcement officials often harmful to the reptiles in question, but they can often be even more harmful to the poor innocent keepers who are either ignorant of new laws or perhaps even entrapped into breaking them.

Within the United States there is now a legislative minefield to navigate when dealing with reptiles. Things are also getting worse. It is not terribly difficult for an otherwise law-abiding person to find themselves outside the law for doing the right thing when keeping their pets. I believe that it is one of the responsibilities of all reptile magazines to ensure that their readers stay within these wildlife laws as much as possible and avoid any hassles which could result in reptile seizures, deaths or criminal indictments.

While Eidbo, may not agree with my sentiments on this matter, I am sure that persons such as Terry Lilley and Brian Hubbs of California would. Both men have suffered the ignominy of having

heavily armed wildlife officials trooping through their houses and seizing their snakes. Both men were later informed that some of their snakes had unnecessarily died while held by officials. Both men were charged over the incidents. I am sure that if both men could have avoided their run-ins with officials they would have.

Or perhaps ask the German Herpetologists who got shot at by officials in Madagascar due to a misunderstanding over whether or not the Germans had collecting permits. The result in this case was deaths on both sides, injuries and irreparable psychological damage. And what about the scientists at Old Dominion University and Christopher Newport University, who are now being forced to stop an eight year old radiotelemetry study on state endangered Canebrake Rattlesnakes (*Crotalus horridus atricaudatus*) by the Chesapeake City Council in Virginia and local wildlife officials. Is this really necessary? This is just part of the reason why I think that all reptile magazines, societies and so on should work hard to prevent such unsavory incidents from happening in the future. And if you think that these were isolated incidents, I suggest you read my books *Smuggled* or *Smuggled-2* (available for US\$25 from Kotabi Publishing, P.O. Box 599, Doncaster, Vic, 3108, Australia), both of which contain more relevant USA-based material. And even this is just the tip of the iceberg. I am now gathering material for a USA-based book about wildlife corruption, misconduct, silly laws and so on, and believe me, I already have more than enough material to fill several volumes!

Before closing, may I further recommend another publication to your readers. It is a new widely available book called *A Field Guide to Reptiles and the Law*, by John P. Levell, is 240 pp. and costs about US\$29. This book should be an important addition to most herpetological libraries. A review of that book was published on pages 173-4 of the August 1995 Bulletin of the Chicago Herpetological Society.

### Suggested Reading

Buhlmann, K. A. 1995. Legislation & Conservation. *Herpetological Review*. 26 (2):67. (Re: anti-environmental policies terminating research into State endangered Canebrake Rattlesnakes (*Crotalus horridus atricaudatus*) in Virginia, USA).

Bush, B., R. Browne-Cooper and B. Maryan 1991. Some suggestions to Decrease Reptile Roadkills in Reserves with Emphasis on the Western Australian Wheatbelt. *Herpetofauna (Australia)*. 21(2):23-24. (Details extensive road-kill mortality and how to reduce the toll).

Ehmann, H. and Cogger, H. G. 1985. Australia's Endangered Herpetofauna: A Review of criteria and policies. pp. 435-437, In Biology of Australian Frogs and Reptiles, G.C. Grigg, R. Shine, and H. Ehmann (eds.). Surrey Beatty and Sons Pty. Ltd. Chipping Norton, NSW, Australia. (Goes through causes of deaths of Australian reptiles and frogs and relative importance of road kills versus licensing laws, etc).

Flanagan, G. 1995. The State of California vs. Herpetoculture. *Reptiles*. 3(2):4-6. (Re: idiotic bureaucracy against herpetoculture).

Holmes, G. L. 1994. On the Legislative Front: Nightmare in Texas. *The Vivarium*. 6(4):5-6. (Re: bureaucrats inventing false smuggling and extinction claims against reptile collectors to justify their existence).



### Reply to Hoser:

I would like to thank Raymond for taking the time to not only read my article, but also critique it. A letter this long, and detailed, deserves a point-by-point reply.

A general response to his comments about *Monitor* and *Herpetofauna*: I stand by what I said. Obviously the two have different target audiences, and of course my review is subjective. If

Hoser, R. T. 1989. *Australian Reptiles and Frogs*. Pierson Publishing, Mosman, NSW, 2088, Australia. 238 pp. (Covers reptile mortality, including on roads, conservation and laws).

Hoser, R. T. 1991. *Endangered Animals of Australia*. Pierson Publishing, Mosman, NSW, 2088, Australia. 240 pp. (Covers mortality of all wildlife, causes of endangerment and so on).

Hoser, R. T. 1993. *Smuggled - The Underground Trade in Australia's Wildlife*, Apollo Publishing, Mosman, NSW, 2088, Australia. 149 pp. (Covers wildlife laws and people who fall foul of them; also wildlife official corruption. Also has a vast number of relevant citations).

Hoser, R. T. 1996. *Smuggled-2*, Apollo Publishing, Mosman, NSW, 2088, Australia. (In Press), (Covers same material as Smuggled. Also has a vast number of relevant citations).

Hubbs, B. 1994. Confessions of a convicted Snake Dealer. *Notes From NOAH*. 22(2):12-16. (Re: a major run-in with wildlife bureaucrats).

Levell, J. P. 1995. *A Field Guide to Reptiles and the Law*. Serpent's Tale, Excelsior, MN, USA. 240 pp. (Summary of USA Wildlife regulations for reptiles).

Lilley, T. 1981. The Sting: Who really got stung. *Notes From NOAH*. 8(2):1-3. (Raids by California Wildlife officials).

Lilley, T. 1982. Herpetologist's Independence day. *Notes From NOAH*. 9(10):16-17. (Litigation against California wildlife officials).

Lopez, P. 1994, "Operation Ranching For Reptiles" snares 23 Californians in sting. *The League of Florida Herpetological Societies Newsletter*. (December):23. (Re: State officials seizing captive reptiles from breeders).

Mirtschin, P. J. 1993. A case for deregulation of the keeping and taking of reptiles. *Herpetofauna (Australia)*. 23(1):1-6. (Re: stupidity of wildlife legislation in Australia, negative effects, people falling foul of officials, etc).

Mirtschin, P. J. 1994-5. Native Wildlife has been Shielded from the public by draconian legislation and regulation - Flaws in the Laws of Nature. *Australian Natural History*. (Summer Edition):80.

Obst, F. J., R. Seipp, and others 1993, The Tympanum. *Bulletin of the Chicago Herpetological Society*. 28(8):173-178. (Re: Madagascar Massacre - also see Smuggled-2 for a detailed account of same).

Reid, D. B. 1993. The Tympanum. *Bulletin of the Chicago Herpetological Society*. 28 (9):201-203. (Re: Madagascar Massacre - also see Smuggled-2 for a detailed account of same).

Romanowski, N. 1995. Conservation (F)laws. *Nature (Australia)*. (Winter Edition):4. (Re: counter-productivity of State wildlife laws for conservation of threatened species).

Samuelson, P. 1994. Going Monthly, Legislation. *Reptiles*. (December):2. (Re: legal threats to herpetoculture).

Sprackland, R. 1990. Endangered Species and Placing Blame. *The Vivarium*. 1(4):40-44. (Re: causes of decline of reptiles and other wildlife and relative insignificance of live animal trade in most matters).

Valentic, R. 1995. Australia's Reptiles - Victims of the Road. *Monitor*. 6(3):119-128.

Weigel, J. 1992. How Australian Wildlife Protection Policies Impede Herpetology. *Herpetofauna (Australia)*. 22(2):7-14. (Re: improper laws, etc in Australia).

Mr. Hoser wants full color pictures of roadkill, be my guest. But lighten up — they look exactly like a Far Side cartoon!

In terms of expense, my review was aimed at an American audience. If you live in England, or Australia, I suppose your native journals would be cheaper. Finally, as a board certified Anatomic Pathologist with published scientific papers, I believe I have at least

an average (and very expensive) education, and Raymond, *Herpetofauna* is somewhat technical, and a little dry, to boot.

Mr. Hoser, if you read more than one of the reviewed magazines, your comments on advertising are confusing, at best. Every major magazine carries the same ads, month after month, *ad nauseam*. I find them repetitive, misleading, distracting, and unwanted. You're correct, some are better than the articles they distract from, which means we need more articles by talented writers such as yourself.

As far as my comments on the legislative and regulation updates, It is my opinion that most of us in this hobby (not business) are less interested in reading about the legal ramifications in our mainstream magazines. It is an excellent idea of Hoser's to start a magazine emphasizing this aspect, and suggest that he and Levell would be

the ideal people to run such a project. Maybe the AFH or other organizations could lend their support. A magazine, or journal, devoted to the laws and bureaucracy that complicate our hobby would be great. It was not my intention to down-play the seriousness of this issue, but would remind Hoser to try and have some fun with this hobby, because that's why most of us are in it!

A footnote: it appears that *Captive Breeding* has given up the ghost, after taking in a lot of subscription renewals. Does anyone know more about this?

Sincerely,  
Joel Eidbo

### Dear Editor:

The review by Joel Eidbo of the 'Ten Herp Mags' was interesting. I suppose it could be looked at as an achievement to be even judged amongst the 'ten.' Many of his points I agree with and his criticism was constructive and worth noting.

There are many reasons why we do things differently in the V.H.S [Victorian Herpetological Society] as we are aiming to break our ties with some of the old and 'stale' traditions. Many people forget, or don't take notice, that *Monitor* is a regional publication put out by a single society and not run by organizations such as in the case of the 'heavyweights' like *Vivarium*, *Reptile & Amphibian*, and *Reptiles*.

As an example, we have NO private advertising at all, which in one way restricts more revenue coming in for possible additional color pages. We decided on this for a couple of reasons. We didn't want the journal to end up full of adverts, we do not have the large advertising clients as you may have in the States and to put it bluntly there are quite a few 'dealers' etc that we wouldn't want advertising

in our journal. Instead of advertising other peoples products, we purchase suitable products ourselves and have full power of advertising, without competition, for our own goods. This way we make up some of the money lost through not having outside advertisers. The only permanent adverts we have in *Monitor* are the two on the inside covers, for Repcal and Herptivite (we took out Australasian import and distribution rights on these). The only other adverts we have are to fill in any gaps that may be left after an article. If all articles finished at the bottom of the page we wouldn't have any adverts apart from the Repcal ones.

Anyway, that was just to fill you in on some of the reasons behind why we do things certain ways. The next edition of *Monitor* should be a boomer (May '96). Will keep you in suspense until then.

Sincerely,  
Brian Barnett  
President V.H.S. Inc.

## THE SCIENCE BEHIND THE SCIENTIFIC NAME

Eric Peterson

Many people involved in herpetoculture have difficulty reading scientific names, and find pronouncing scientific names is even more difficult. Why wouldn't it be easier to call a coral snake a coral snake rather than *Micruroides fulvius*? That would be easier for those of us who speak English. But, for those people who don't speak English, to read and pronounce these names would be a challenge. Even in the U.S., common names change between regions. The mystery behind scientific names and why they seem like a foreign language is really quite simple.

In 384 B.C. Aristotle did some work on classification. But, in the 18th century it was the famous Swedish botanist, Carl Linnaeus, who was responsible for the first real attempts to classify and name living organisms. He gave scientific names to all known living organisms, including plants. His system of taxonomy and nomenclature is still the accepted form of identification throughout the world. Nomenclature is the process of naming an animal. Taxonomy is the scientific study of classifying animals. The system that Linnaeus created is called a binomial (or binomial) system, meaning two names for every plant and animal. The first is the genus name, which comes from the Latin word *genus*, meaning birth or origin. This word should be in the form of a noun and capitalized. Next is the specific name or species. This word should be an adjective, although sometimes it is a noun and is not capitalized. Both should be in *italics* or underlined. When personal names are

used one cannot name a species after themselves. A good example is the Utah milk snake, *Lampropeltis triangulum taylori*, first described by Wilmer Tanner in 1957 and named after Dr. Edward Taylor under whom he studied at the University of Kansas. Today a trinomial system sometimes is used to allow for the division of some species into subspecies. The trinomial system is based upon the binomial system that Linnaeus created, and not all species are broken down to subspecies level.

Many people wonder what language is used and why. When Linnaeus created his system of identification he could have used his native Swedish language but his system would have not been universally accepted. Instead, he used classical Greek and Latin. These were the international languages of European scholars. Also, Classical Greek and Latin are dead languages, which means they do not change unlike languages currently spoken.

There are many rules in the system of nomenclature. One rule is called homonyms. This means that if a name has been previously used in the animal kingdom it is invalid if used again. This prevents two totally unrelated animals from being grouped together.

A good example is that of the duckbilled platypus. *Platypus* was given to the duckbill in 1799, however the name had been used years before in naming a beetle, and as a result it was considered invalid. The duckbill's name was changed to *Ornithorhynchus*. The rule of homonyms only applies to the genus, because there are many

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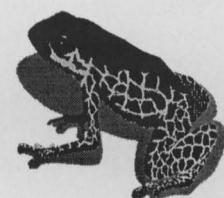
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species in different genera that share the same species name. Take for instance the western rattlesnake, *Crotalus viridis* and the green toad, *Bufo viridis* these are two different genera, but both share the same species name.

The rules forbid the use of hyphens and diacritic marks like the apostrophe. Rules did not allow for spelling corrections until 1961. At that time, corrections in spelling were accepted until 1963. One change, which was made at that time, was that of the American alligator. Its original name was *Alligator mississippiensis*, misspelled since 1802. However, the code change in 1961 allowed it to be corrected to *Alligator mississippiensis*.

Scientific names become exciting when they are broken down and defined. There is a meaning behind every confusing word. The Eastern diamondback rattlesnake, *Crotalus adamanteus*, is a good example. *Crotalus* is Greek, meaning a little bell or a rattle. *Adamanteus* is Latin, meaning hard as steel. This is comparing the hardness of steel to a diamond, the pattern which this snake displays.

Utah's native herps share some of the same interesting names that when defined bring new life to their mysterious names. Below are some of Utahs herps and their scientific names and what they mean.

#### **Banded Gila monster- *Heloderma suspectum cinctum***

- *helos* (Gr) a nail or stud, used mostly in decorating. *derma* (Gr) the skin. This is referring to the stud-like scales that cover the lizards body.

- *suspensus* (L) distrusted or suspicious. When this lizard was described it was not known whether or not it was venomous.

- *cinct* (L) girdled. Referring to the bands for which the lizard is named.

#### **Mojave Desert sidewinder-*Crotalus cerastes***

- *krotalon* (Gr) a little bell or rattle.

- *cerastes* (L) a horned serpent. The scales above the eyes form a horn.

#### **Western fence lizard-*Sceloporus occidentalis longipes***

- *skelos* (Gr) the leg. *Poros* (Gr) a passage through the skin. This is a reference to the large femoral pores.

- *occidentalis* (L) western. This lizard is found in the southwest.

- *longi* (L) long. *pes* (L) a foot. These lizards have long feet and toes.

#### **Utah mountain kingsnake- *Lampropeltis pyromelana infralabialis***

- *lampros* (Gr) shinning, beautiful. *Pelte* (Gr) a small shield. Referring to the skin of the snake.

- *pyro* (Gr) fire. *melan* (Gr) black. *a* (Gr) together. The colors of this snake include red (fire) and black together.

- *infra* (L) below, beneath. *labi* (L) a lip. *alis* (L) pertaining to. This is a reference to the nine infralabial scales of this snake, distinguishing it from other subspecies which have ten.

As one can see, there is more to a scientific name than being difficult to pronounce. Each name has a meaning. As you acquire new herps, find out the meaning behind the name. Do the same with herps you already have. All you need is a Latin and classical Greek dictionary. Also, as you break down the name, you will find pronouncing them becomes easier.



### **Book Review:**

#### **IGUANA IGUANA: A GUIDE FOR SUCCESSFUL CAPTIVE CARE**

by Fredric L. Frye. 1995. Krieger Publishing Company, Malabar, Florida. 178 pp. + 24 plates, Hardcover, US \$39.50. ISBN 0-89464-892-6

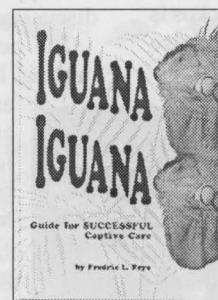
#### **Breck Bartholomew**

This book is based on the book *Iguanas: A Guide to Their Biology and Captive Care*, but don't let this fact fool you. When I read the first book I disagreed with much of the information and the approach to Iguana keeping. I told several people that they were better off buying *The Green Iguana Manual* by de Vosjoli than *Iguanas*. Some of the reviews of this first book were also critical to say the least. Thus it was with some apprehension that I began reading the book *Iguana iguana*. Fortunately, improvements were noticed readily and my apprehension dissipated quickly.

In revising the book, Frye has paid close attention to the criticisms of the previous work and it shows. The approach to iguana keeping is less "cuddly" and more responsible. Veterinary aspects play a greater role in the revised work.

The first chapter, "understanding green iguanas" offers some basic information about iguanas in general, before focusing on the green iguana. The section on selecting a green iguana offers good insights to help identify healthy animals as well as suggesting medical examinations for all newly acquired iguanas. The chapter goes on to describe many common behaviors, some of which have needlessly caused alarm to the new iguana owner. Another important aspect of this chapter are the sections on handling, restraint, and carrying. These sections will certainly help save many iguana toes and help reduce stress among both iguanas and owners.

Chapter 2 delves more deeply into husbandry techniques with an emphasis on proper caging. In addition to the size and type of cage, Frye discusses ways to reduce stress when multiple iguanas are housed near each other. Light, heat, water, and temperature are



discussed as well as waste management, substrates, and furniture.

The third chapter describes the digestive system and how it works, then builds on this knowledge to discuss feeding and nutrition. A diet is recommended that is consistent with our knowledge of wild iguanas and the problem of feeding animal protein is discussed. Frye emphasizes a well rounded diet of vegetables and includes a discussion about commercial iguana diets. Most commercial iguana diets were found to be inadequate; thus I found it odd that Appendix C lists 10 sources for commercial diets. Specific plants are discussed and nutritional values of several plants are presented in tabular form. Plants that might be toxic to iguanas are presented in Chapter 4.

The next five chapters make up the heart of this book. They discuss medical disorders and treatments of green iguanas. All of the common, and many of the uncommon, medical disorders found in green iguanas are presented in a way that will be beneficial to many iguana owners. Although, some of the topics require specific jargon that may require some veterinary knowledge, most of the text will prove understandable to the average reader. Frye discusses symptoms, separated for quick reference, then suggests treatments. This is not, however, a do-it-yourself manual. Among the many important aspects of these chapters, two stand out in my mind. First, these chapters enable iguana owners to identify when their lizard is sick or unhealthy and give them an idea of what is wrong. Secondly, veterinarians will be able to refer to these chapters to help diagnose and treat the lizard more effectively.

Reproduction is discussed in chapter 10, although the emphasis seems to be more on the veterinary aspects of reproduction rather than "how to." This is probably because captive breeding of green iguanas is still not very common. Nonetheless, this chapter is informative and should be of interest to most iguana owners even if they only own one iguana and never intend to breed it. This chapter also discusses spaying female iguanas.

The final chapter of the book, entitled "Wendy's observations," remains the same as in the previous book. This chapter discusses the life of several iguanas owned by Wendy Townsend (co-author of the book *Iguanas*). Apparently many iguana owners really enjoyed this chapter so it was included in this book too.

The book also includes six appendices, a glossary, and bibliography. Normal physiological values make up Appendix A, and should prove useful for many veterinarians. The remaining appendices include conversion tables, addresses for suppliers of reptile related products, a list of herpetological societies both in the USA and abroad, and a couple of computer services.

I appreciate the intention of these latter appendices, but I feel they are either incomplete, or contain a large amount of outdated information. For example two herp societies are listed for Utah, even though I specifically noted that only one exists in the survey Krieger Publishing sent out. Several of the other herp societies listed either no longer exist or are listed with an outdated address. Finally, the computer services list contains *only three* of interest to herpetologists: Herpetology Network; America online; and Prodigy!

Although I do not hesitate to recommend this book, I do have some gripes that I'd like to express. First, the layout of the book includes a very large inside margin. This margin is used to indicate

when there is a figure to illustrate the text and where the figure located. In general, however, the margin is a waste of space. The color plates are divided in an annoying fashion. The first eight plates are identical to the first book and the remaining plates are new. This arrangement has resulted in chapter 10's figures occurring on plates 1, 3, 4, 5, 23, and 24! Most of the other chapter figures are also greatly dispersed making it a hassle to find them. Also many of the photographs are of unnecessarily poor quality. Finally, the book is only available in hardcover.

I realize some of the things I dislike about the book were done to save money (i.e., organization of the color plates), but I think this book could have (should have) been produced in a smaller format and in paperback. The smaller format would have eliminated a lot of wasted space and a paperback would reduce the cost so that more iguana owners would buy the book. This latter point is the most important, because I feel many iguana owners should buy this book.

Unfortunately, iguanas are too inexpensive and too many people buy them without proper knowledge of their care. As a result most pet iguanas die or require extensive veterinary care. This book could help iguana owners avoid veterinary visits, but only if the owners buy and read the book. At \$39.50, or about three times the cost of an iguana, it seems unlikely that this book will be as useful as it should be.

Please keep in mind, I feel my gripes are minor. This book is a vast improvement over its predecessor. Not only is the information more accurate and complete, the book contains a lot of information that novice iguana owners need to know.



## Book Review:

### GECKOES: BIOLOGY HUSBANDRY AND REPRODUCTION

by Henkel & Schmidt. 1995. Krieger Publishing Co, Malabar, FL, 237 pp. Hardcover, US \$49.50. Translated from the original German edition of 1991. ISBN 0 89464-919-1

Jim Chapman

It is difficult for me to do a meaningful review of any book on geckos. Since there are so few available, any new title on geckos is bound to get me excited to the extent that I may fail to recognize obvious shortcomings.

This is a very high quality book with fine photographs which is enjoyable reading and a valuable addition to my library. The fact that it has been translated from German did not seem to detract from its readability. In fact, because it was a "foreign work," I was very pleased to note that all of the photographs were new – not the same old ones I have seen many times before.

The first chapter addresses the natural history of geckos, covering subjects such as distribution and habitat, build and mimicry, skin and scalation, gecko feet and the clinging mechanism, eyes, vocalization, and territorial and defensive behavior.

Reproduction is the topic of the second chapter. I found it to be informative as well as interesting. There is the requisite discussion of the relationship between gecko egg incubation temperature and the sex determination of the resulting young. The coverage of breeding prerequisites should prove helpful to the hobbyist who is not successful in breeding attempts.

The next chapter, entitled "The Vivarium," not only provides useful information on housing geckos but also discusses nutrition, rearing young, diseases and treatment, breeding food insects, etc.



Five types of vivariums are described and then referred to in the discussions of housing needs for specific species later in the book.

The next chapter is disappointingly brief in its discussion of heating, lighting, and humidity control in the vivarium. Products are not mentioned by brand name. I suppose these topics are adequately covered in publications such as *The Vivarium, Journal of the American Federation of Herpetoculturists*, but I am anxious to be exposed to new products and technologies.

The final chapter of over 100 pages consists of a survey of geckos frequently kept in captivity, organized by subfamily and genus. Pertinent facts regarding each gecko's habitat and physical attributes as well as suggested hints for its husbandry are provided. Many of those species discussed are also pictured in excellent photographs as mentioned earlier. The authors are forcing me to become more familiar with scientific names since most of the common names I am used to are not mentioned and those that are used do not appear in the index.

An extensive bibliography is provided but much of what is listed is in German.

The bottom line is that I do recommend this book to the hobbyist, who, like myself has more than a passing interest in geckos. The cost may be a little excessive but the quality is there. This is the best coverage of the subject that I have found and I expect to refer to it often.

**In Memoriam:****MICHAEL B. NORDFELT****1976—1995**

I first met Mike in June of 1993 at the Salt Lake Audubon Society's Basin & Range Seminar. I was teaching the Amphibian & Reptile class and Mike was very eager to learn about herps. I think Mike ended up attending all three of the classes I taught and immediately became a willing assistant. Between classes we discussed possible approaches for someone who wishes to become a herpetologist. I mentioned volunteer work, and he mentioned wanting to start research for a class project. We discussed possible research, but I never expected him to really start any.

To my surprise, Mike and his cousin Jesse had picked a field site and began making observations within a couple of weeks. Although they did not have a specific goal in mind they decided to observe leopard lizard (*Gambelia wislizenii*) behavior. Basically they had found a good population of leopard lizards and were discretely following individuals for up to eight hours at a time! At age 17 I never had the patience to observe a lizard for eight hours and I know that I don't have it now.

Some of their observations were unique as relatively little is known about leopard lizard behavior. Two of their observations stand out in my mind. One of the lizards they followed for the better part of a day, eventually ended up climbing about a meter in a juniper tree where it spent the night on a branch. Needless to say Mike & Jesse were back at the tree before sunrise to watch the lizard become active a few hours later.

Another lizard was followed until it dug a hole for the night. This observation was recorded on videotape and showed the lizard backfilling its burrow so it was completely buried. In the morning they recorded the lizard as it created a new hole to exit. During its morning warm-up, when the lizard's head was the only part of its body outside the hole, a side-blotched lizard (*Uta stansburiana*) stopped within inches of the leopard lizard for a few minutes. Surprisingly, the leopard lizard did not take advantage of this easy meal!

In addition to his own field studies during 1993, Mike also helped me in Zion National Park on several occasions and assisted some of John Legler's graduate students both in the field and in the lab.

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By the time he started his Senior year in high school he had decided on a class project. He collected several newborn side-blotched lizards and randomly placed them into groups. Each group was kept under identical conditions with only the light source varying. The goal was to determine what effect UV lights have on growth and survivability. This study introduced Mike to the frustration of research. Some of the lizards died and he realized his sample sizes were too small. Nonetheless, Mike stuck it out and completed a report when the year was nearly over.

In Spring 1994, Mike went on the amphibian count to Canyonlands. His description of the trip was "like rad dude" which meant he had a great time. He became my preferred field companion because he was ever eager, didn't complain, and was good at finding and catching herps. It also helped that his curiosity never waned.

Eventually, Mike took over the organization of UtAH meetings. He also started working at Zooherp to learn more about herps and to gain experience.

Like so many people who just finish high school, Mike started college with high hopes. Also like many, Mike found college wasn't what he thought it would be. He wanted to start making a living immediately, not in four or more years. He was still determined to become a biologist, however, and even started visiting me at work to learn molecular techniques like PCR and electrophoresis.

More recently, Mike obtained a full-time job with the plan of working for a while before finishing college. Between his job and his girlfriend, Mike didn't have a lot of free time for field work, although he often thought about where he wanted to go next.

I too had plans for field work with Mike. Not only was Mike a good worker, he was a good friend. His untimely death in an industrial accident came as quite a shock. I will certainly miss Mike and all the "rad" times we might have had together.

On behalf of UtAH I would like to send my deepest sympathy to his family, his cousin Jesse, and his fiance Nikki.

by Breck Bartholomew

**For Sale:** Bags of frozen small rats available for delivery to the next meeting, \$0.95 each. Call & leave order (801) 364-5009.

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**Next Meeting:** Thursday, February 1, 1996 at 7:00 pm in room 140 of the U of U James Talmage Building (JTB). **Dr. Peter Hovingh** will present a talk entitled **Biogeography of Amphibians in the Great Basin**. After the talk there will be a drawing for a copy of the new AVS book *Care and Breeding of Panther, Jackson's, Veiled and Parson's Chameleons*. We will also have a raffle if someone donates a healthy long-term captive (preferably captive born) animal.

The University of Utah has decided to start charging us for the use of their facilities. As a result we will have to decide on a new meeting location. Also, the position of meeting coordinator is open. Anyone wishing to take charge and organize the meetings is welcome to volunteer for the position.



*Bufo viridis* souvenir sheet from Staffa Scotland

## Utah Association of Herpetologists

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